

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 25 provides for the use of liquid crystal film, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

4. Claim 25 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

### ***Information Disclosure Statement***

5. The information disclosure statement filed 05/19/2006 fails to comply with 37 CFR 1.98(a)(2), which requires **a legible copy of each cited foreign patent document**; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been

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placed in the application file, but the information referred to therein has not been considered. **A legible copy of each cited foreign patent document has not been provided.**

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 7, 10-15, 18-21 and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Leigeber et al. (US 6,071,438).

8. Claim 1: Leigeber teaches a partially crosslinked polymeric material is in an oriented and partially crosslinked state on a solvent-impermeable support material and is introduced into an extractant in this form, wherein the extractant diffuses into the material and extraction of the uncrosslinked contents therefore only takes place from one surface of the film (col. 4, lines 49-55). The partially crosslinked polymeric material meets the claimed partially polymerized first layer, and the introduction of the extractant meets the claimed application of extraction media. Leigeber teaches post crosslinking after extraction of polymerizable residues that are still present in the polymeric material (col. 5, lines 40-43). The post crosslinking meets the claimed step (iv) of claim 1. The partially crosslinked polymeric material is cholesteric polymer (col. 3, line 60), wherein the cholesteric polymer are chiral liquid crystals.

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9. Claim 2: Leigeber teaches the polymeric material can be a cholesteric liquid-crystalline organosiloxane (col. 6, lines 54 and 55).
10. Claims 3 and 12: Leigeber teaches the extractant can be solvents or mixtures of various solvents in which the solubility parameter is identical or similar to the solubility parameter of the polymer to be extracted or its soluble contents (col. 4, lines 1-4).
11. Claim 4: Leigeber teaches the extractant can be a liquid-crystalline polysiloxane (col. 4, line 17).
12. Claim 5: Leigeber teaches the extractant can be glycols such as diethylene glycol (col. 4, line 38).
13. Claim 7: It is well established that a diethylene glycol is a transparent material.
14. Claims 10 and 11: The invention of Leigeber relates to optical elements (col. 6, line 29).
15. Claims 13 and 15: Leigeber teaches an extractable material which is part of the polymeric materials whose network is not fully formed or crosslinked (col. 2, lines 55-59).
16. Claim 14: Leigeber teaches the extractable material can be an uncrosslinkable polymer or oligomer mixed with the polymer material (col. 3, lines 25 and 26).
17. Claims 18-20: The invention of Leigeber relates to liquid crystal (LC) displays, security printings (col. 6, lines 15-20).
18. Claim 21: The **process** by which the layers of the print product are formed is not dispositive of the issue of the patentability of the instant **article** claims.

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19. Claims 23 and 24: The invention of Leigeber relates to optical elements (col. 6, line 29).

20. Claims 25-27: The invention of Leigeber relates security documents (col. 6, lines 15-20).

### ***Allowable Subject Matter***

21. Claims 6, 8, 9, 16, 17 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The reference of Leigeber fails to teach or suggest the extractant/extraction medium is a printing ink.

### ***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is (571)272-1529. The examiner can normally be reached on Monday-Friday 7am-4:30pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Ruthkosky can be reached on 571-272-1291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS

June 6, 2010.

/Betelhem Shewareged/  
Primary Examiner, Art Unit 1785